

ABBREVIATIONS

A	AMPERE	KW	KILOWATT
AB	ABOVE COUNTER	KWH	KILOWATT HOURS
ABBREV	ABBREVIATIONS	LA	LIGHTNING ARRESTER
AC	ALTERNATING CURRENT	LAN	LOCAL AREA NETWORK
ADA	AMERICANS W/IDISABILITIES ACT	m	MILLI-
AF	AMP FRAME, AMP FUSE	MAX	MAXIMUM
AFF	ABOVE FINISHED FLOOR	MC	MECHANICAL CONTRACTOR / METAL CLAD CABLE
AFG	ABOVE FINISHED GRADE	MCA	MINIMUM CIRCUIT AMPACITY
AGC	AUTOMATIC GAIN CONTROL	MCB	MAIN CIRCUIT BREAKER
AHU	AIR HANDLING UNIT	MCM	THOUSAND CIRCULAR MILS
ALT	ALTERNATE	MDP	MAIN DISTRIBUTION PANEL
AM	AMPLITUDE MODULATION	MDS	MAIN DISTRIBUTION SWITCHBOARD
APPROX	APPROXIMATELY	MCC	MOTOR CONTROL CENTER
AS	AMP SWITCH OR AMMETER SWITCH	MI	MINERAL INSULATED
AT	AMP TRIP OR AMP TAP	MIC	MICROPHONE
@	AT	MH	MANHOLE OR METAL HALIDE
ATC	AUTOMATIC TEMPERATURE CONTROL	MIN	MINIMUM
ATS	AUTOMATIC TRANSFER SWITCH	MISC	MISCELLANEOUS
AUX	AUXILIARY	MLO	MAIN LUGS ONLY
AWG	AMERICAN WIRE GAGE	MOA	MULTIOUTLET ASSEMBLY
BFG	BELOW FINISHED GRADE	MOD	MOTOR OPERATED DAMPER
BPS	BOLTED PRESSURE SWITCH	MTD	MOUNTED
C	CONDUIT	NC	NORMALLY CLOSED
CATV	COMMUNITY ANTENNA TELEVISION SYSTEM	NE	NORMAL EMERGENCY
CB	CIRCUIT BREAKER	NEC	NATIONAL ELECTRICAL CODE
CBX	COMPUTER CONTROLLED BUSINESS COMMUNICATION SYSTEM	N OR NEUT	NEUTRAL
CCTV	CLOSED CIRCUIT TV	NF	NON FUSED
CEF	CEILING EXHAUST FAN	NFS	NON FUSED SWITCH
CKT	CIRCUIT	NIC	NOT IN CONTRACT
¢	CENTERLINE	NO	NORMALLY OPEN
CL	CURRENT LIMITING	NTS	NOT TO SCALE
CLF	CURRENT LIMITING FUSE	OC	ON CENTER
CLG	CEILING	OCP	OVERCURRENT PROTECTIVE DEVICE
CRAC	COMPUTER ROOM AIR CONDITIONING UNIT	OD	OUTSIDE DIAMETER
CRS	COLD ROLLED STEEL	OH	OVERHEAD
CS	CONTROL SWITCH	OHD	OVERHEAD DOOR
CT	CURRENT TRANSFORMER	OL	OVERLOAD ELEMENT
CU	COPPER	P	POLE(S) OR PILOT
CUH	CABINET UNIT HEATER	PAF	PAINTED AFTER FABRICATION
DB	DIRECT BURIAL / DECIBEL	PB	PULLBOX
DC	DIRECT CURRENT	PBX	PRIVATE BRANCH EXCHANGE
DIA	DIAMETER	PC	PLUMBING CONTRACTOR
DIST	DISTRIBUTION	PF	POWER FACTOR
DN	DITTO	PIV	POST INDICATOR VALVE
DP	DOWN	PL	PILOT LIGHT
DWG	DRAWING	PNL	PANELBOARD
DWN	DOWN	PR	PAIR
EA	EACH	PRI	PRIMARY
EC	ELECTRICAL CONTRACTOR OR EMERGENCY CRITICAL	PRV	POWER ROOF VENTILATOR
EE	EMERGENCY EQUIPMENT	PVC	POLYVINYL CHLORIDE
EF	EXHAUST FAN	PT	POTENTIAL TRANSFORMER
ELU	EMERGENCY LIGHTING UNIT	R	RELAY
ELR	END OF LINE RESISTOR	RC	REMOTE CONTROL
EM OR EMER	EMERGENCY	REC/P	RECEPTACLE
EMT	ELECTRICAL METALLIC TUBING	REQ'D	REQUIRED
EQ	EQUIPMENT	REV	REVISION
ETR	EXISTING TO REMAIN	RHC	REHEAT COIL
EX	EXISTING (EXIST)	RTU	ROOF TOP UNIT
EW	ELECTRIC WATER COOLER	RAW	RIGHT OF WAY
FA	FIRE ALARM / FEEDER AMPLIFIER	SEC	SECONDARY
FBO	FURNISHED BY OTHERS	SHT	SHEET
FCU	FAN COIL UNIT	SMR	SURFACE MOUNTED RACEWAY
FEC	FIRE EXTINGUISHER CABINET	SPD	SURGE PROTECTIVE DEVICE
FDR	FEEDER	SPDT	SINGLE POLE DOUBLE THROW
FS	FUSIBLE SWITCH	SPECS	SPECIFICATIONS
FU	FUSE	STL	STEEL
FM	FREQUENCY MODULATION	STR	STARTER
G	GROUND	SW	SWITCH
GC	GENERAL CONTRACTOR	SWBD	SWITCHBOARD
GEN	GENERATOR	SWGR	SWITCHGEAR
GFI	GROUND FAULT CIRCUIT INTERRUPTER	TCP	TEMPERATURE CONTROL PANEL
GRD	GROUND	TCV	TEMPERATURE CONTROL VALVE
HC	HEATING CONTRACTOR	TEL	TELEPHONE
HID	HIGH INTENSITY DISCHARGE	TEMP	TEMPORARY
HP	HORSEPOWER	TERM	TERMINAL
HPS	HIGH PRESSURE SODIUM	THD	TOTAL HARMONIC DISTORTION
HUH	HORIZONTAL UNIT HEATER	TTC	TELEPHONE TERMINAL CABINET
HZ	FREQUENCY IN CYCLES PER SECOND	TV	TELEVISION
ID	INSIDE DIAMETER	TP	TWISTED PAIR
ISO	ISOLATION	TSP	TWISTED SHIELDED PAIR
JB	JUNCTION BOX	TYP	TYPICAL
KCMIL	THOUSAND CIRCULAR MILS	UG	UNDERGROUND
KV	KILOVOLT	UNO	UNLESS NOTED OTHERWISE
KVA	KILOVOLT AMPERES	UPS	UNINTERRUPTIBLE POWER SUPPLY
KVAR	KILOVAR	V	VOLT
		VERT	VERTICAL
		W	WIRE
		W/	WITH
		WP	WEATHERPROOF
		XFMR	TRANSFORMER

GENERAL NOTES - ELECTRICAL

1. IT IS CALLED TO THE CONTRACTORS ATTENTION THAT THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS TO INSTALL ALL NEW WIRING CONCEALED (FISHED THRU OPENINGS IN EXISTING BUILDING CONSTRUCTION) IN FINISH AREAS OF THE BUILDING CONSTRUCTION. THE USE OF EXPOSED SURFACE RACEWAYS WILL NOT BE PERMITTED UNLESS APPROVED BY THE CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE (COTR), WHERE BUILDING CONSTRUCTION MUST BE CUT TO CONCEAL NEW CONDUIT AND WIRING THE CONTRACTOR SHALL SAW CUT A CHANNEL IN BUILDING CONSTRUCTION, INSTALL NEW CONDUIT AND PATCH AND FINISH DISTURBED AREAS TO MATCH ADJACENT SURFACES AS APPROVED BY THE COTR.
2. ALL ELECTRICAL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST NATIONAL ELECTRICAL CODE AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES.
3. ALL WIRE, CONDUIT, CONNECTORS, OUTLETS BOXES, ETC. NECESSARY TO ACHIEVE A COMPLETE ELECTRICAL INSTALLATION WHERE AN ELECTRICAL DEVICE IS REQUIRED BY CODE BUT NOT SHOWN SHALL BE FURNISHED AND INSTALLED AS THOUGH FULLY SHOWN AND SPECIFIED.
4. ALL CONDUIT, JUNCTION BOXES, ETC. ABOVE CEILINGS SHALL BE SUPPORTED FROM THE BUILDING DECK, LIGHTING FIXTURES WHICH ARE INSTALLED IN SUSPENDED CEILING SYSTEM MUST BE MECHANICALLY FASTENED TO T-BAR SYSTEM AS PER SPECIFICATIONS.
5. NO CUTTING OF BUILDING CONSTRUCTION SHALL BE DONE WHICH MAY IN ANYWAY AFFECT THE BUILDING STRUCTURALLY OR ARCHITECTURALLY WITHOUT FIRST SECURING THE COTR'S CONSENT AND APPROVAL.
6. NO CONDUITS SHALL BE RUN THROUGH OR SUPPORTED FROM DUCTWORK.
7. ANY EXISTING WIRING WHICH IS ALTERED IN THE EXISTING BUILDING DUE TO THE WORK UNDER THIS CONTRACT SHALL BE MADE ELECTRICALLY CONTINUOUS. WHERE THE REMOVAL OF EXISTING DEVICES OR EQUIPMENT OCCURS IN THE BEGINNING OR THE MIDDLE OF A CIRCUIT, THE EC SHALL PROVIDE NEW BOXES, CONDUITS, CONDUCTORS, ETC. REQUIRED TO MAINTAIN THE CONTINUITY OF THE AFFECTED CIRCUIT. IT IS CALLED TO THE EC'S ATTENTION THAT FOR ANY OF THE EXISTING RECEPTABLES BRANCH CIRCUITS THAT ARE FED WITH CONDUITS IN THE FLOOR SLAB, THE NEW BOXES WILL NEED TO BE INSTALLED BELOW THE SLAB AND EXISTING CONDUITS AND CONDUCTORS EXTENDED DOWN INTO THE NEW BOXES AND JOINED TOGETHER. NEW OPENINGS IN THE EXISTING FLOOR SLAB SHALL BE GROUTED SHUT BY THE EC. THE COMPLETE INSTALLATION SHALL BE AS APPROVED BY THE COTR.
8. ALL EXISTING AREAS WHICH ARE DAMAGED BECAUSE OF THE ELECTRICAL WORK UNDER THIS CONTRACT SHALL BE REPAIRED AND/OR REFINISHED. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL CUTTING, PATCHING, PAINTING AND REMOVING/REPLACING CEILING TILES DAMAGED OR SOILED AS IS NECESSARY FOR HIS WORK.
9. THE DEMOLITION SHALL INCLUDE THOSE ELECTRICAL ITEMS THAT INTERFERE WITH THE NEW CONSTRUCTION. THE OWNER WILL HAVE FIRST OPTION AT RETAINING TITLE TO EXISTING MATERIALS, FIXTURES AND OTHER ITEMS.
10. AFTER CONSTRUCTION OF NEW RENOVATED AREAS IS COMPLETED, THE CONTRACTOR SHALL LABEL UNUSED CIRCUIT BREAKERS IN ALL ELECTRICAL PANELS INVOLVED. SPARES SHALL BE MARKED SPARES.
11. ALL ELECTRICAL WORK, WIRING, CONNECTIONS AND ASSOCIATED EQUIPMENT WITHIN THE AREA OF WORK SHALL BE AS PER APPLICABLE ARTICLES OF THE NATIONAL ELECTRICAL CODE, IN PARTICULAR ARTICLE #517. COORDINATE WITH SPECIFICATIONS FOR DEVICE REQUIREMENTS.
12. THE CONTRACTOR SHALL PATCH AND FINISH ALL UNUSED OPENINGS AND DISTURBED SURFACES IN EXISTING BUILDING CONSTRUCTION RESULTING FROM THE REMOVAL OF ELECTRICAL EQUIPMENT UNDER THIS CONTRACT. ALL PATCHING AND FINISHING WORK SHALL BE APPROVED BY THE COTR.
13. IT IS CALLED TO THE CONTRACTOR'S ATTENTION THAT THE ENTIRE INSTALLATION MUST BE GROUNDED IN COMPLIANCE WITH THE NATIONAL ELECTRICAL CODE. ALL DEVICES, EQUIPMENT BOXES, ETC. MUST BE CONNECTED TO A SOLID, INSULATED GREEN, COPPER GROUNDING CONDUCTOR. THIS GROUNDING CONDUCTOR MUST BE CONTINUOUS WITHOUT SPLICES FROM POINT OF ORIGIN IN PANELBOARD TO ALL BOXES AND EQUIPMENT ON EACH BRANCH CIRCUIT. VERIFY GROUNDING VALUES AND SUBMIT A TYPEWRITTEN REPORT TO THE COTR INDICATING TESTING RESULTS OF EACH CIRCUIT AT THE COMPLETION OF THE PROJECT.
14. FURNISH, INSTALL, & PERFORM ANY & ALL NECESSARY WORK AND EQUIPMENT ON A TEMPORARY BASIS TO ASSURE UNINTERRUPTED SERVICE TO THE ELECTRICAL, FIRE ALARM, TELEPHONE AND SIGNAL/DATA SYSTEMS UNTIL NEW EQUIPMENT CAN BE INSTALLED ON A PERMANENT BASIS FOR THESE SYSTEMS. ALL OUTAGES MUST BE SCHEDULED WITH THE COTR PRIOR TO ANY INTERRUPTIONS OF THESE SYSTEMS.
15. UNLESS NOTED OTHERWISE, NEW WIRING INDICATED FOR SINGLE PHASE WORK SHALL BE 2#12 & 1#12 GROUND IN 3/4" CONDUIT AND 3 #12 & 1 #12 GROUND IN 3/4" CONDUIT, FOR THREE PHASE CIRCUITS.
16. IT IS CALLED TO THE CONTRACTORS ATTENTION THAT ALL NEW CONDUITS INSTALLED UNDER THIS PROJECT MUST BE INSTALLED AS HIGH AS POSSIBLE ON THE UNDERSIDE OF THE FLOOR CONSTRUCTION AND INSTALLED AROUND BEAMS.
17. REFER TO SPECIFICATIONS AND ARCHITECTURAL DRAWINGS FOR PHASING OF CONSTRUCTION WORK AND CONSTRUCTION AREA RESTRICTIONS.
18. THE CONTRACTOR SHALL FIRESTOP ALL EXISTING CONCEALED AND ACCESSIBLE CONDUITS WITHIN THE LIMITS OF THE CONTRACT WORK AREA. THE CONTRACTOR SHALL FIRESTOP ALL NEW AND EXISTING CONDUITS AS PART OF THE REMODELING AND EXISTING SYSTEMS TO REMAIN. (REFER TO SPECIFICATIONS)
19. THE CONTRACTOR SHALL PROVIDE AND INSTALL APPROVED FIRE STOPPING AT ALL NEW AND EXISTING FLOOR SLAB/CEILING AND WALL PENETRATIONS WITHIN THE LIMITS OF CONTRACT WORK AREA TO MAINTAIN THE FIRE RATED CONSTRUCTION.
20. COLOR OF VARIOUS BURIED WARNING TAPE(S) SHALL BE AS FOLLOWS:

• BURIED ELECTRIC LINE

- RED

• BURIED COMMUNICATIONS LINE

- ORANGE

• BURIED FIBER OPTIC LINE

- ORANGE

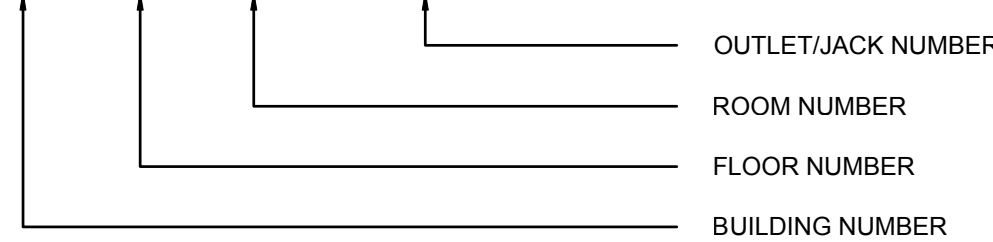
• BURIED CATV LINE

- ORANGE
21. ALL SURGE PROTECTION DEVICES (SPD) SHALL BE INSTALLED AS CLOSE AS POSSIBLE TO PANELS WHICH THEY SERVE. IF SPD MUST BE REMOTELY MOUNTED, CONFIRM WITH MANUFACTURE ON EXACT CABLING REQUIRED.
22. COORDINATE ALL WORK WITH ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR ICRA REQUIREMENTS.
23. ALL UTILITY INTERRUPTIONS SHALL BE SCHEDULED AND PREFORMED ONLY ON WEEKENDS. ALL MAJOR UTILITY INTERRUPTIONS SHALL REQUIRE 15 DAYS NOTICE TO THE VA COTR.

TELECOMMUNICATIONS LABELING SCHEME

- THE FOLLOWING DESCRIBES TELECOMMUNICATION OUTLET NAMING NOMENCLATURE

XXX - X - XXX - XXX



NOTE:

THE FOLLOWING LIST APPLIES TO ALL NEW BRANCH WIRING PROVIDED UNDER THIS CONTRACT. LISTS INDICATE THE NECESSARY GAUGE OF CONDUCTORS NECESSARY FOR BRANCH CIRCUITS ONE WAY FROM PANEL TO LAST OUTLET OR LIGHTING FIXTURE ON THE CIRCUIT.

120V CIRCUITS	WIRE SIZE
• 0 - 99 FEET	No. 12 AWG
• 100 - 199 FEET	No. 10 AWG
• 200 - 300 FEET	No. 8 AWG

100% Construction Documents	08/05/10
Revisions	Date

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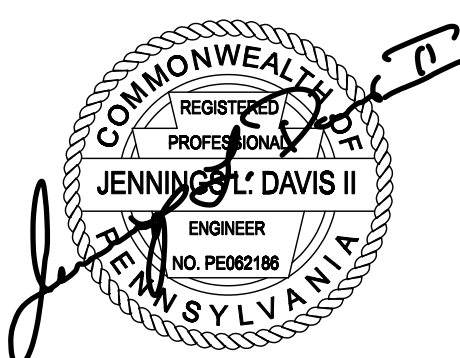
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Drawing Title ELECTRICAL ABBREVIATIONS AND NOTES	Project Title CONSTRUCT HOSPICE COATESVILLE	Date 08-05-2010	
Approved: Chief Engineering Service	Drawn RJD	Project No. 542-CSI-201	
Approved: Medical Center Director	Checked JLD	DRAWING No. EG0.02	
		Dwg. Of	
	Building Number	Location COATESVILLE, PENNSYLVANIA	